DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FINAL AIR QUALITY CONSTRUCTION PERMIT

Permit No. 064CP01 Final Permit, March 18, 2002
Application Number X143

The Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues a construction permit to the Permittee, **Union Oil Company of California**, for the **Grind and Inject System** drive engines at the **Bruce Platform**.

This permit satisfies the obligation of the owner and operator to obtain a construction permit as set out in AS 46.14.130(a).

As required by AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this construction permit.

As set out in 18 AAC 50.340(i), this construction permit revises terms and conditions of Air Quality Control Permit to Operate No. 9223-AA002, as amended September 15, 1992.
[18 AAC 50.320(b), 1/18/97]

_____

John F. Kuterbach, Program Manager
Air Permits

Table of Contents

List of Abbreviations Used in this Permit

AAC .....Alaska Administrative Code
ADEC.....Alaska Department of Environmental Conservation
AS.....Alaska Statutes
ASTM.....American Society of Testing and Materials
CEMS.....Continuous Emission Monitoring System
C.F.R. .....Code of Federal Regulations
CO .....Carbon Monoxide
COMS.....Continuous Opacity Monitoring System
dscf.....Dry standard cubic feet
EPA .....US Environmental Protection Agency
GIS .....Grind and Inject System
gr/dscf.....grain per dry standard cubic feet (1 pound = 7000 grains)
GPH.....gallons per hour
HAPS.....Hazardous Air Pollutants [hazardous air contaminants as defined in AS 46.14.990(14)]
H_2S .....Hydrogen Sulfide
ID .....Source Identification Number
MACT .....Maximum Achievable Control Technology
Mlb .....thousand pounds
MM.....Million
NAICS .....North American Industry Classification System
NESHAPs.....Federal National Emission Standards for Hazardous Air Pollutants [as defined in 40 CFR 61]
NSPS .....Federal New Source Performance Standards [as defined in 40 CFR 60]
NO_x.....Oxides of Nitrogen
PPM.....Parts per million
PS .....Performance specification
PSD .....Prevention of Significant Deterioration
RM .....Reference Method
SIC.....Standard Industrial Classification
SO_2 .....Sulfur dioxide
TPH .....Tons per hour
TPY .....Tons per year
VOC .....volatile organic compound [as defined in 18 AAC 50.990(103)]
Wt% .....weight percent

Section 1. Identification

Names and Addresses

Permittee:	Union Oil Company of California 909 West 9th Avenue, P.O. Box 196247 Anchorage, Alaska 99519-6247
Facility:	Bruce Platform
Location:	60? 59' 56" N, 151? 17' 52" W
Physical Address:	Upper Cook Inlet, Alaska
Owner:	Union Oil Company of California
Operator:	Union Oil Company of California 909 West 9th Avenue, P.O. Box 196247 Anchorage, Alaska 99519-6247
Permittee's Responsible Official	Martin T. Morell, Union Oil Company of California
Designated Agent:	CT Corporation 801 West 10th Street, Suite 300 Juneau, Alaska 99801
Facility and Building Contact:	Allen Dorman, Facility Site Manager Bruce Platform Upper Cook Inlet, Alaska (907) 776-6660
Fee Contact:	Janet Bounds, Union Oil Company of California P.O. Box 196247 Anchorage, Alaska 99519-6247

SIC Code of the Facility: Crude Petroleum and Natural Gas Production; SIC Code 1311

NAICS Code: 211111

[18 AAC 50.320(a), 1/18/97]

Section 2. Emission Information and Classification

Emissions of Regulated Air Contaminants, as provided in Permittee's application:

Oxides of Nitrogen (NOx), Sulfur Dioxide (SO_2), Carbon Monoxide (CO), Particulate Matter, and Volatile Organic Compounds (VOC).

Construction Permit Classifications:

Note: Facility Classifications are described under 18 AAC 50.300(b) through (g), modification classifications are described under 18 AAC 50.300(h), and owner requested limits are described under 305(a)(1) through (4).

Installing the drive engines for the Grind and Inject System requires a construction permit because:

a. The facility is classified as:

   i. an Ambient Air Quality Facility under 18 AAC 50.300(b)(2), as the facility contains sources with a rated capacity of 100 MM Btu/hr or more, and

   ii. a Prevention of Significant Deterioration (PSD) Major Facility under 18 AAC 50.300(c)(1), as the facility has a potential to emit more than 250 tons per year of NO_X and CO;

b. The project is classified as a modification listed in 18 AAC 50.300(h)(2), as there will be an increase in actual emissions;

c. Owner requested limits avoid classification as a PSD significant modification under 18 AAC 50.300(h)(3), as provided by 18 AAC 50.305(a)(4); and

d. The Permittee has also requested that certain existing permit conditions be rescinded under 18 AAC 50.305(a)(3).

[18 AAC 50.320(a)(2), 1/18/97]

Section 3. Permit Continuity

1. Except as revised or rescinded herein or as superseded by an Air Quality Permit issued under AS 46.14.170, the Permittee shall comply with terms and conditions of Air Quality Control Permit to Operate No. 9223-AA002, as amended September 15, 1992.

2. If permit terms and conditions listed in this permit conflict with those of Permit No. 9223-AA002, the Permittee shall comply with terms and conditions listed herein.

3. The following terms and conditions of Air Quality Control Permit to Operate No. 9223-AA002 are revised as follows.

Condition 20

20) Permittee shall notify the Department's Anchorage Office by telephone at (907) 269-8888 or by facsimile at (907) 269-7508 promptly of any equipment failures or when operating conditions occur which increase air contaminant emissions beyond normal levels, such as the flaring of liquids, or of any change in operating conditions or any other circumstance which may result in emissions which exceed the limits or standards specified in the permit or regulations. The notification shall include nature of occurrence, the expected duration, and steps taken to minimize emissions and avoid recurrence. A written report shall be submitted to ADEC, Air Permits Program, 555 Cordova Street, Anchorage, Alaska 99501.

Condition 23

23) Permittee shall submit two copies of a Facility Operating Report, by January 30th, April 30th, July 30th, and October 30th, as described in exhibit D, to the ADEC, Air Permits Program, 610 University Ave., Fairbanks, Alaska 99709-3643, ATTN: Compliance Technician.

Exhibit C Process Monitoring and Fuel Testing Requirements, Fuel Gas H_2S Content. The fuel gas H_2S content monitoring requirement is updated as follows.

Monitor weekly using one of the following methods: ASTM D 1072-80, ASTN D 4084-82, ASTM D 3246-81, ASTM D 4810-88, ASTM D 4913-89, and GPA 2377-86.

Exhibit D Facility Operating Report, Item 2--Fuel Consumption, and Item 3-- Fuel Sulfur Content of Fuel Gas,

2. Fuel Consumption

Natural Gas	Total Quantity of natural gas consumed by all combustion equipment, except flaring, million cubic feet per month.
Diesel Fuel	Total quantity of fuel burned in all combustion equipment, gallons per month.
Flaring	The approximate quantity of fuel flared, million cubic feet and/or gallons per month.

3. Fuel Gas	Weekly hydrogen sulfide content of the fuel gas in ppm, using the methodology specified in Exhibit C.

4. The following two Conditions of AQC Permit to Operate 9223-AA002, as amended September 15,1992, are rescinded.

Condition 25

25. Permittee shall have instruction on the proper operation of each source listed in Exhibit A of this permit available at any control monitor or in any control room for the equipment or at another location readily accessible to operator of the equipment and to any authorized representative of the Department.

Condition 26

26. Permittee shall clearly display a copy of this permit in the production foreman's office and keep a copy of the State Air Quality Control Regulations 18 AAC 50 on file, at the permitted facility location.

Section 4. Source Inventory and Description

5. Authorization and Notification Requirements. The Permittee is authorized to modify and operate the facility in accordance with the construction permit application as may be currently applicable.

5.1 This permit authorizes the Permittee to install two diesel-fired reciprocating engines; each rated at 500 hp or less for the Grind and Inject System.

5.2 Notify the Department of the make, model, and Nominal Rating/Size of Sources 28 and 29 no later than 7 days after installation on the platform, in accordance with Condition 7. If available, provide vendor guaranteed emission factors for Particulate Matter and Nitrogen Oxides with this notification.

The sources listed below have specific monitoring, record keeping, or reporting conditions in this construction permit. The source description and rating are given for identification purposes only. The facility equipment inventory prior to the Grind and Inject System Project is listed in Permit No. 9223-AA002, revised September 15, 1992.

Table 1: Construction Permit Source Inventory

ID	Source Name	Source Description	Fuel	Maximum Nominal Rating/Size
Source 28	GIS Drive #1	Diesel Fired Reciprocating Engine	Diesel	500 hp
Source 29	GIS Drive #2	Diesel Fired Reciprocating Engine	Diesel	500 hp

Section 5. Ambient Air Quality Standards and Maximum Allowable Ambient Concentrations

6. **General Description.** This permit contains terms and conditions to ensure that allowable emissions from the facility and associated growth will not cause an ambient concentration that exceeds the concentrations established in Table 6 of 18 AAC 50.310(d)(2) at any location that does not or would not meet the ambient air quality standard or maximum allowable ambient concentration.

7. Notwithstanding the regulations set forth in 18 AAC 50.300(h), the Permittee shall notify the Department, in accordance with the following conditions, within 7 days after:

7.1 installing a stationary emission source at the facility that is not listed in Exhibit A of Permit to Operate No. 9223-AA002; or

7.2 making a physical or operational change to a source listed in Exhibit A of Permit to Operate No. 9223-AA002 that would cause a net increase in the emissions of a regulated air contaminant.

8. The Permittee shall track and report in the Facility Operating Report required by Permit to Operate No. 9223-AA002, the use of permanent and temporary non-road engines installed after final issue date of this permit that have a size rating greater than 400 Brake Horse Power. Include in the report: the engine's size, serial number and tag number if assigned, and the dates that the engine arrived on the platform, initially started up on-site, finally shut down on-site, and was removed from the platform.

Section 6. Owner Requested Limits to Avoid Classification as a PSD Major Modification

Nitrogen Oxides Requirements. Avoid project classification as a Prevention of Significant Deterioration major modification under 18 AAC 50.300(h)(3)(B)(ii) for NO_X as follows:

9. Operational Limit for Sources No. 28 and 29

9.1 The permittee may operate Sources 28 and 29 up to a combined total of 3168 hours per twelve-month rolling total.

9.2 The permittee shall monitor and record the date and time that Sources 28 and 29 start and stop operation and the duration that each source is operated, **OR**

The permittee shall install and operate an hour meter that records total hours of operation on each of Sources 28 and 29. Record the meter's reading for each unit on the same day of each month.

10. Nitrogen Oxides Emissions Limit Limit the combined total emissions of NO_X from Sources 28 and 29 to no greater than 24.6 tons NO_X per twelve-month rolling period expressed as NO_2.

11. Determine the NO_X potential to emit from Sources 28 and 29.

11.1 Provide an estimate of the NO_X potential to emit from sources 28 and 29 with the notification required in Condition 5.2 based on the operational limit listed in Condition 9.1 and vendor guaranteed NO_X emission factors, **OR**

11.2 The Permittee may elect to perform emissions source testing in accordance with Condition 12 and provide an emissions estimate with the first Facility Operating Report following submission of the source test results.

12. Source Testing for Sources 28 and 29. If vendor guaranteed NO_X-emission factors are unavailable, the Permittee shall perform NO_X emission source tests to determine NO_X-emissions.

12.1 Conduct NO_X emission source tests on Sources 28 and 29 within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. If source 28 and source 29 are of identical make and model, the Permittee may elect to perform the test on only one of the sources.

12.2 Conduct an initial NO_X emission source test on Sources No. 28 and/or 29, in accordance with Conditions 12.1, 22.1 and 26 to determine an on-site fuel-specific emission factors for each source.

12.3 For each NO_X emission source test,

a. test sources 28 and/or 29 at 100% of peak load or maximum normal operating load and determine the hourly NO_X mass emission rate consistent with Condition 12.4. (lbs.-NO_X/hr.) **OR**

b. test sources 28 and/or 29 at 30, 50, 75, and 100 percent of peak load, or at four loads within the normal operating range including the minimum point in the range and the peak load and determine a fuel specific emission factor consistent with Condition 12.4. (lbs.-NO_X/Gallon fuel)

12.4 Determine the exhaust gas flow rate of each source using either Methods 1-4 or Method 19 of 40 CFR 60 Appendix A.

a. Collect engine operational parameters during the tests.

b. Measure fuel consumption rate for each source during test.

c. If electing to use method 19,

(i) the unit must be equipped with a dedicated fuel flow meter accurate to plus or minus 2% error. Attach a copy of the fuel meter certification to the emission source test report.

(ii) Determine the Higher Heating Value of the fuel for Sources 28 and 29 using ASTM D 240-76 or 92. Attach a copy of the analysis to the emission source test report.

13. Monitoring, Record Keeping & Reporting Additional monitoring, record keeping and reporting requirements to ensure compliance with the owner requested limit to avoid classification of the project as PSD significant.

13.1 The permittee shall record any deviation from the owner requested limits in accordance with Condition 30 and report the deviation as required by Condition 31.1b(ii), 31.1c), 31.1d).

13.2 If source tests were performed, recalculate the NO_X net emission change due to the project based on the data from source tests performed according to Conditions 12.3a or 12.3b for Sources 28 and 29. Attach an analysis documenting the net change and site-specific emission factor to the first Facility Operating Report due after submission of the source test report required by Condition 26. Include in the analysis sample calculations and data used to develop the site-specific emission factors.

13.3 **If** Source 28 and 29 potential to emit calculated for Condition 11 exceeds 24.6 tons per year, monitor the following operational parameters for each of Sources 28 and 29,

a. If emission factor determined according to Condition 12.3a, hours of operation each month.

b. If emission factor determined according to Condition 12.3b, monthly fuel consumption. Record hours of operation for any period during which fuel consumption is not monitored.

13.4 **If** Source 28 and 29 potential to emit calculated for Condition 11 exceeds 24.6 tons per year, calculate and report monthly and twelve-month rolling NO_X emissions from Sources No. 28 and 29 based on

a. vendor guaranteed or source test derived emission factors, and

b. the hours of operation or fuel consumption as appropriate.

Section 7. State Emission Standards

This section applicable to the GIS Drive Engines

Visible Emissions

14. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Sources No. 28 and 29 to reduce visibility through the exhaust effluent by greater than 20% for more than three minutes in any one hour.

14.1 Within 60 days after achieving maximum production rate, conduct a visible emission observation as set out in Section 13.

14.2 If required by Condition 46, Conduct a visible emission observation under Section 13, and

14.3 Monitor, record and report according to Section 12.

[18 AAC 50.055(a)(1), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]
[18 AAC 50.320(a)(2)(A-E), 1/18/97]

Particulate Matter

15. The Permittee shall not cause or allow particulate matter emitted from Sources 28 and 29 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours. Monitor, record and report according to Section 12.

[18 AAC 50.055(b)(1), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]
[18 AAC 50.320(a)(2)(A-E), 1/18/97]

16. Provide the Department with verification that Sources 28 and 29 comply with the state particulate matter grain-loading standard 0.05 gr /dscf. This verification shall be calculated from vendor guaranteed or source test derived emission factors.

16.1 Provide a compliance verification based on vendor guaranteed emissions factors with the notification required in Condition 5.2, **or**

16.2 Perform source testing for Particulate Matter using the procedures and methods prescribed in Section 9 of this permit. Provide verification based on source test data along with the information for a Source Test Report required by Condition 26.

[18 AAC 50.220(b) & (c), 1/18/97]
[18 AAC 50.320(a)(2)(A-C), 1/18/97]

Sulfur Compound Emissions

17. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from Sources 28 and 29 to exceed 500 PPM averaged over three hours.

17.1 Compliance is assured with this condition by using a grade of Diesel fuel for Sources 28 and 29 that contains no more than 0.50% sulfur by weight.

17.2 Monitor, record, and report according to Permit No. 9223-AA002, as amended September 15, 1992.

[18 AAC 50.055(c), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]
[18 AAC 50.320(a)(2)(A-E), 1/18/97]

Section 8. Generally Applicable Requirements

18. Modification. The Permittee shall not construct, operate, or modify a source that will result in a violation of the applicable emission standards or that will interfere with the attainment or maintenance of the ambient air quality standards or maximum allowable ambient concentrations.

[18 AAC 50.045(c), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]

18.1 Obtain all permits or permit revisions required for construction, modification, or operation under 18 AAC 50 and AS 46.14.

[18 AAC 50.320(a)(2), 1/18/97]

18.2 Comply with the conditions of all permits obtained under 18 AAC 50 and AS 46.14.

[18 AAC 50.320(a)(2), 1/18/97]

19. Air Pollution Prohibited. The Permittee shall not cause any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

[18 AAC 50.110, 5/26/72]
[18 AAC 50.040(e), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]

19.1 Within 24 hours of receiving a complaint that is attributable to emissions from any of the sources listed in Table 1, investigate the complaint, and if warranted, initiate corrective actions to alleviate or eliminate the cause of the complaint.

[18 AAC 50.320(a)(2)(A-C), 1/18/97]

19.2 Keep records of the date, time, and nature of all complaints received, a summary of the investigation, and if applicable the corrective actions undertaken for complaints attributable to emissions from the sources listed in Table 1. Upon request of the Department, submit copies of the records.

[18 AAC 50.320(a)(2)(D-E), 1/18/97]

Section 9. General Source Testing and Monitoring Requirements

This section is applicable to the GIS Drive Engines, Units 28 and 29.

20. Requested Source Tests. In addition to any source testing explicitly required by this permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a), 1/18/97]
[18 AAC 50.345(a)(10), 1/18/97]

21. Operating Conditions. Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing:

21.1 At a point or points that characterize the actual discharge into the ambient air; and

21.2 At the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air.

[18 AAC 50.220(b) & (c), 1/18/97]
[18 AAC 50.320(a)(2)(A-C), 1/18/97]

22. Reference Test Methods. The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:

22.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 CFR 60.

[18 AAC 50.220(b) & (c), 1/18/97]
[18 AAC 50.320(a)(2)(A-C), 1/18/97]

22.2 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 CFR 61.

[18 AAC 50.220(b) & (c), 1/18/97]
[18 AAC 50.320(a)(2)(A-C), 1/18/97]

22.3 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 CFR 63.

[18 AAC 50.220(b) & (c), 1/18/97]
[18 AAC 50.320(a)(2)(A-C), 1/18/97]

22.4 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Section 13 of this permit. Visibility source testing is exempt from the requirements listed in Conditions 24 through 26. Except as otherwise directed by the Department, attach visible emission source testing results to the Facility Operating Report required by Condition 32 of this permit.

[18 AAC 50.220(b) & (c), 1/18/97]
[18 AAC 50.320(a)(2)(A-C), 1/18/97]

22.5 Source testing for emissions of particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organic compounds, metals, and acid gases must be conducted in accordance with the methods and procedures specified 40 CFR 60, Appendix A.

[18 AAC 50.220(b) & (c), 1/18/97]
[18 AAC 50.320(a)(2)(A-C), 1/18/97]

22.6 Source testing for emissions of PM_{10} must be conducted in accordance with the procedures specified in 40 CFR 51, Appendix M.

[18 AAC 50.220(b) & (c), 1/18/97]
[18 AAC 50.320(a)(2)(A-C), 1/18/97]

22.7 Source testing for emissions of any contaminant may be determined using an alternative method approved by the Department in accordance with Method 301 in Appendix A to 40 CFR 63.

[18 AAC 50.220(b) & (c), 1/18/97]
[18 AAC 50.320(a)(2)(A-C), 1/18/97]

23. Excess Air Requirements. To determine compliance with this permit, standard exhaust gas volumes must only include the volume of gases formed from the theoretical combustion of fuel, plus the excess air volume normal for the specific source type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

[18 AAC 50.220(b) & (c), 1/18/97]
[18 AAC 50.320(a)(2)(A-C), 1/18/97]
[18 AAC 50.990(88), 1/18/97]

24. Test Plans. Before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance, and must specify how the source will operate during the test and how the Permittee will document this operation. A complete plan must be submitted within 60 days of receiving a request under Condition 20 and at least 30 days before the scheduled date of any tests.

[18 AAC 50.345(a)(10), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]
[18 AAC 50.320(a)(2)(A-C), 1/18/97]

25. Test Notification. At least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and time the source test will begin.

[18 AAC 50.345(a)(10), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]
[18 AAC 50.335(g), 1/18/97]

26. Test Reports. Within 45 days after completing a source test, the Permittee shall submit two copies of the results, to the extent practical, in the format set out in the *Source Test Report Outline* of Volume III, Section IV.3, of the State Air Quality Control Plan, adopted by reference in 18 AAC 50.030(8). The Permittee shall certify the results as set out in Condition 27 of this permit.

[18 AAC 50.345(a)(10), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]
[18 AAC 50.320(a)(2)(D), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]

Section 10. General Record-keeping, Reporting, and Compliance Certification Requirements

27. Certification. The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department and required under this permit by including the signature of a responsible official for the permitted facility following the statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete." For the same three-month reporting period, the excess emission reports submitted pursuant to Condition 31 may be certified with the operating report required by Condition 32 of this permit. All other reports must be certified upon submittal.

[18 AAC 50.205, 1/18/97]
[18 AAC 50.345(a)(9), 1/18/97]
[18 AAC 50.320(a)(2) & 18 AAC 50.320(a)(2)(E), 1/18/97]

28. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send reports, compliance certifications, and other documents required by this permit to ADEC, Fairbanks Air Permits Office, Compliance Assurance, 610 University Avenue, Fairbanks, AK 99709.

[18 AAC 50.320(a)(2)(E), 1/18/97]

29. Information Requests. The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by this permit. The Department, in its discretion, will require the Permittee to furnish copies of those records directly to the federal administrator.

[18 AAC 50.200, 1/18/97]
[18 AAC 50.345(a)(8), 1/18/97]
[18 AAC 50.320(a)(2) & 18 AAC 50.320(a)(2)(A-E), 1/18/97]

30. Record-keeping Requirements. The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

30.1 Copies of all reports and certifications submitted pursuant to this Section of this permit.

30.2 Records of all monitoring required by this permit, and information about the monitoring including:

a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;

b. sampling dates and times of sampling and measurements;

c. the operating conditions that existed at the time of sampling or measurement not applicable to fuel gas H_2S sampling;

d. the date analyses were performed;

e. the location where samples were taken;

f. the company or entity that performed the sampling and analyses;

g. the analytical techniques or methods used in the analyses; and

h. the results of the analyses.

[18 AAC 50.320(a)(2)(D), 1/18/97]

31. Excess Emission and Permit Deviation Reports.

31.1 Except as provided in Condition 19.2, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows.

a. Report as soon as possible after the event commences

(i) emissions that present a potential threat to human health or safety; and

(ii) excess emissions which the permittee believes to be unavoidable;

b. within two days of discovery, report

(i) excess emissions measured or observed, and

(ii) operation in excess of permit requirements under this permit for: 1) allowable fuel quality or quantity, allowable hours of operation, 2) any other limitation used to avoid a classification by limiting the facility's potential to emit, 3) any other limitation used to assure compliance with ambient air quality standards or maximum allowable increases, 4) Reasonable precautions to prevent fugitive dust;

c. no later than 30 days after the end of the month in which the deviation was discovered, report the failure to monitor emissions, and

d. report all other deviations with the next facility operating report.

31.2 The report must include the form contained in Section 14 of this permit, and provide all information listed on the form.

31.3 If requested by the Department, provide a more detailed written report as requested to follow up the excess emission report.

32. Operating Reports. During the life of this permit, the Permittee shall submit an original and two copies of an operating report as set out by Permit No. 9223-AA002. This report must include copies of the records required by the conditions of this permit. In addition, the report must include a listing of all dates of deviations and excess emissions, corresponding with Condition 31, which occurred during the reporting period. If the Permittee is certifying the excess emission and permit deviation report pursuant to Condition 27, then a copy of each excess emission and permit deviation report must be attached to the operating report.

[18 AAC 50.320(a)(2)(A-E), 1/18/97]

Section 11. Standard Conditions Not Otherwise Included in the Permit

33. The Permittee must comply with each permit term and condition. Noncompliance constitutes a violation of AS 46.14, 18 AAC 50, and the Clean Air Act, except for those requirements designated as not federally-enforceable, and is grounds for:

33.1 an enforcement action,

33.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280, or

33.3 denial of a construction-permit renewal application.

[18 AAC 50.345(a)(1), 1/18/97]
[18 AAC 50.320(a)(1), 1/18/97]

34. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

[18 AAC 50.345(a)(2), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]

35. Each permit term and Condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of this permit.

[18 AAC 50.345(a)(3), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]

36. Compliance with permit terms and conditions is considered to be compliance with those requirements that are:

36.1 included and specifically identified in the permit, or

36.2 determined in writing in the permit to be inapplicable.

[18 AAC 50.345(a)(4), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]

37. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any construction permit condition.

[18 AAC 50.345(a)(5), 1/18/97]
[18 AAC 50.320(a-c), 1/18/97]

38. The permit does not convey any property rights of any sort, nor any exclusive privilege.

[18 AAC 50.345(a)(6), 1/18/97]
[18 AAC 50.320(b), 1/18/97]

39. The Permittee shall allow an officer or employee of the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator, to:

39.1 enter upon the premises where a source subject to the construction permit is located or where records required by the permit are kept,

39.2 have access to and copy any records required by the permit,

39.3 inspect any facilities, equipment, practices, or operations regulated by or referenced in the permit, and

39.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

[18 AAC 50.345(a)(7), 1/18/97]
[18 AAC 50.320(a)(2), 1/18/97]

Section 12. Visible Emissions and Particulate Matter Monitoring Plan

Visible Emissions Observations

40. The Permittee shall observe visible emissions in the exhaust of each source listed in Section 4 as follows:

For Sources 28 and 29: Within 10 days after startup, conduct an observation of the exhausts for the presence or absence of visible emissions, excluding condensed water vapor. The observation shall consist of a visual survey no less than 6 minutes in duration. Record the following information in a written log for each observation:

a. The date and time of the observation;

b. From Table 1 of Section 4 of this permit, the ID of the source observed;

c. Whether visible emissions are present or absent in the exhaust;

d. If the source starts operation on the day of the observation, the startup time of the source; and

e. Name, title, and signature of the person making the observation.

Corrective Actions Based on Visible Emissions Observations

41. If visible emissions are present in the exhaust during an observation performed under Condition 40 or at any other time, the Permittee shall

41.1 If visible emissions persist, take actions to reduce visible emissions from the source within 24 hours of the observation;

41.2 Keep a written record of the starting date, the completion date, and a description of the actions taken to reduce visible emissions;

41.3 After completing the actions taken to reduce visible emissions, immediately upon startup of the source, observe the source exhaust for visible emissions as described under Condition 40.1 a, b, c, d, and e; and

41.4 If visible emissions are still present in the exhaust during an observation performed under Condition 41.3, then take action to reduce visible emissions as detailed in Conditions 41.1 and 41.2. Within 14 days after subsequent startup, observe the exhaust for 15 minutes to obtain 60 individual 15-second reading in accordance with Section 13 of this permit.

Particulate Matter Testing

42. Upon Department request the Permittee shall conduct tests to determine the concentration of particulate matter in the exhaust of a source as follows:

42.1 Conduct the tests according to the requirements set out in Section 9 of this permit; and

42.2 During each test, observe visible emissions in accordance with Section 13 and calculate the average opacity that was measured during the test. Submit the results of the visible emission observations and the calculation with the source test report.

Reporting Requirements

43. The Permittee is not required to comply with Conditions 24, 25, and 26 while observing visible emissions.

44. For all visible emissions observations taken under Conditions 40, 41.3, and 41.4, the Permittee shall submit copies of observation results with the facility report required by Condition 32.

45. For all tests to determine the particulate matter in the exhaust of a source conducted under Condition 42, the Permittee shall report as set out in Section 9.

46. The Permittee shall submit a report in accordance with Condition 31 if:

46.1 A visible emission observation results in 13 or more 15-second readings with an opacity greater than 20% for the GIS engines; or

46.2 The results of a test for particulate matter exceed the particulate matter emission limit.

[18 AAC 50.320(a)(2)(A-E), 1/18/97]

Section 13. Visible Emission Evaluation Procedures

An observer qualified according to 40 CFR 60, Reference Method 9 shall use the following procedures to determine the reduction of visibility through the exhaust effluent.

Position. The qualified observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented in the 140? sector to his back. Consistent with maintaining the above requirement, the observer shall, as much as possible, make his observations from a position such that his line of vision is approximately perpendicular to the plume direction and, when observing opacity of emissions from rectangular outlets (e.g., roof monitors, open baghouses, noncircular stacks), approximately perpendicular to the longer axis of the outlet. The observer's line of sight should not include more than one plume at a time when multiple stacks are involved, and in any case the observer should make his observations with his line of sight perpendicular to the longer axis of such a set of multiple stacks (e.g., stub stacks on baghouses).

Field Records. The observer shall record the name of the plant, emission location, facility type, observer's name and affiliation, and the date on the Visible Emissions Field Data Sheet. The time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky Condition (presence and color of clouds), and plume background are recorded on the sheet at the time opacity readings are initiated and completed.

Observations. Opacity observations shall be made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. The observer shall not look continuously at the plume but instead shall observe the plume momentarily at 15-second intervals. Unless directed to do otherwise in this permit, observe emissions for no less than 15 consecutive minutes to obtain a minimum of 60 observations.

Attached Steam Plumes. When condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible. The observer shall record the approximate distance from the emission outlet to the point in the plume at which the observations are made.

Detached Steam Plume. When water vapor in the plume condenses and becomes visible at a distinct distance from the emission outlet, the opacity of emissions should be evaluated at the emission outlet prior to the condensation of water vapor and the formation of the steam plume.

Recording Observations. Opacity observations shall be recorded to the nearest 5 percent at 15-second intervals on the Visible Emissions Observation Record contained in this section. Record the minimum number of observations required by the permit. Each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

Data Reduction. To determine compliance with the standards set out in Condition 14 of this permit, count the number of observations that exceed the percent opacity limits and record this number on the sheet.

Visible Emissions Field Data Sheet

Certified Observer:_____

Company: _____

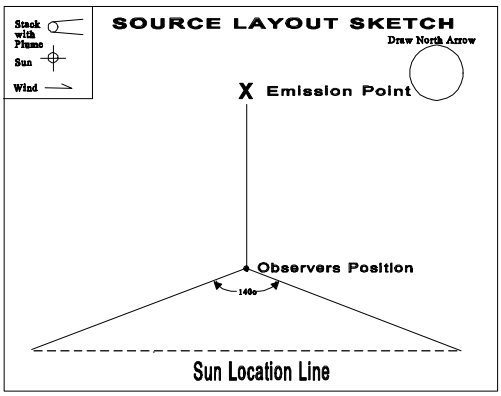
Location: _____

Test No.: _____ Date: _____

Source: _____

Production Rate, Operating Rate & Unit Operating Hours: _____

Hrs. of observation: _____



Clock Time	Initial				Final
Observer location Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description: Color					
Distance visible					
Water droplet plume? (attached or detached?)					
Other information					

Visible Emissions Observation Record

Page ___ of ___

Company _____ Certified Observer_____

Test Number _____ Clock time_____

Date:		Visibility reduction every 15 Seconds (Opacity)				Steam Plume (check if applicable)		Comments
Hr	Min	0	15	30	45	Attached	Detached	

Additional information:

_____
Observer Signature

Data Reduction:
Duration of Observation Period (minutes) _____
Number of Observations _____
Number of Observations exceeding limits _____

Average Opacity Summary

Set Number	Time Start—End	Opacity	
		Sum	Average

Section 14. ADEC Notification Form

Fax this form to: (907) 269-7508 Telephone: (907) 269-8888

Union Oil Company of California
Company Name

Bruce Platform
Facility Name

1. Reason for notification:

✍ Excess Emission † Permit Condition Exceedence

2. Event Information (Use 24-hour clock)**:**

	START Time**:**	**END** Time:	**Duration** (hr:min):
Date: _____	_____:_____	_____:_____	_____:_____
Date: _____	_____:_____	_____:_____	_____:_____
		Total:	_____:_____

3. Cause of Event (Check all that apply)**:**

† START UP † UPSET CONDITION † CONTROL EQUIPMENT
† SHUT DOWN † SCHEDULED MAINTENANCE † OTHER _____

Attach a detailed description of what happened, including the parameters or operating conditions exceeded.

4. Sources Involved:

Identify each Emission Source involved in the event, using the same identification number and name as in the Permit. List any Control Device or Monitoring System affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device

5. Emission Limit and/or Permit Condition Exceeded:

Identify each Emission Standard and Permit Condition suspected of being exceeded during the event. Attach a list of ALL known or suspected injuries or health impacts. Attach additional sheets as necessary.

Permit Condition	Limit	Exceedence

6. Emission Reduction:

Attach a detailed description of ALL of the measures taken to minimize and/or control emissions during the event.

7. Corrective Actions:

Attach a detailed description of ALL corrective actions taken to restore the system to normal operation.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: Signature: Date:

Section 15. Permit Documentation

November 26, 2001	Letter from Martin Morell of Unocal, to Jim Baumgartner of ADEC, requesting a construction permit for the installation of two 500 hp or less, diesel fired reciprocating engines for the Grind and Inject System on the Bruce platform.
2001	Letter from Janet Bounds of Unocal, to Jim Baumgartner of ADEC, with the retainer for construction-permit application X-143.